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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,341	11/25/2003	Simon Korowitz	102314-0157	6549

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NUTTER MCCLENNEN & FISH LLP
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EXAMINER

PHAN, RAYMOND NGAN

ART UNIT	PAPER NUMBER
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2111

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/722,341	Applicant(s) KOROWITZ ET AL.	
	Examiner Raymond Phan	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12,13,15,17,18,20,23,24,26,29,30 and 35 is/are allowed.
- 6) ☒ Claim(s) 2-11,14,16,19,21,22,25,27,28,31-34 and 36-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

Notice to Applicant(s)

1. This action is responsive to the following communications: amendment and response filed on October 23, 2006.
2. This application has been examined. Claims 2-42 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-11, 14, 16, 19, 21-22, 25, 27-28, 31-34, 36-42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Prager et al. (US No. 4,558,914) in view of Di Giulio et al. (US No. 5,390,351).

In regard to claims 2, 27, 36, 42, Prager et al. disclose a control system comprising a plurality of field devices 22 (see figure 1); the computing device 21 including a control subsystem comprising a bus; a plurality of modules 22 that coupled to the bus and that each comprise a housing (see figure 1); at least a first module comprising a controller (see figure 1, col. 4, lines 3-38); at least the second module interfacing with the field device (see figure col. 4, lines 3-28); at least a third module interface to the field device that provides the second control function (see figure 1, col. 4, lines 3-28). But Prager et al. do not specifically disclose at least one of the field devices providing a control function within the control system, the second function control including controlling one or more devices. However Di Giulio et al. disclose at least one of the field devices providing a control function 310 within the control system (see col. 4, lines 65-67), the second

function control (i.e. sensor, motion) including controlling one or more devices (see col. 4, lines 65-67). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of D Giulio et al. within the system of Prager et al. because it would readily and easily provide an expansion system for industrial controller.

In regard to claims 3, 7, 11, 16, 21, 37-41, Prager et al. disclose a control system comprising a plurality of field devices 22 (see figure 1); the computing device 21 including a control subsystem comprising a bus; a plurality of modules 22 that coupled to the bus and that each comprise a housing (see figure 1); at least a first module comprising a controller (see figure 1, col. 4, lines 3-38); at least the second module interfacing with the field device (see figure col. 4, lines 3-28); at least a third module interface to the field device that provides the second control function (see figure 1, col. 4, lines 3-28). But Prager et al. do not specifically disclose at least one of the field devices providing a control function within the control system, the second function control including controlling one or more devices; wherein the computing device downloading programs and data to the control system. However Di Giulio et al. disclose at least one of the field devices providing a control function 310 within the control system (see col. 4, lines 65-67), the second function control (i.e. sensor, motion) including controlling one or more devices (see col. 4, lines 65-67); wherein the computing device 210 downloading programs and data to the control system (see col. 22, line 59 through col. 23, line 3). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of D Giulio et al. within the system of Prager et al. because it would readily and easily provide an expansion system for industrial controller.

In regard to claims 4, 8, 19, 25, 31-32, Prager et al. disclose a control system comprising a plurality of field devices 22 (see figure 1); the computing device 21 including a control subsystem comprising a bus; a plurality of modules 22 that coupled to the bus and that each comprise a housing (see figure 1); at least a first module comprising a controller (see figure 1, col. 4, lines 3-38); at least the second module interfacing with the field device (see figure col. 4, lines 3-28); at least a third module interface to the field device that provides the second control function (see figure 1, col. 4, lines 3-28); support member that is adapted to mount to any a wall and a DIN rail, at least one module is being mechanically coupled to the support member (see col. 6, lines 5-62). But Prager et al. do not specifically disclose at least one of the field devices providing a control function within the control system, the second function control including controlling one or more devices; wherein the computing device downloading programs and data to the control system. However Di Giulio et al. disclose at least one of the field devices providing a control function 310 within the control system (see col. 4, lines 65-67), the second function control (i.e. sensor, motion) including controlling one or more devices (see col. 4, lines 65-67); wherein the computing device 210 downloading programs and data to the control system (see col. 22, line 59 through col. 23, line 3). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of D Giulio et al. within the system of Prager et al. because it would readily and easily provide an expansion system for industrial controller.

In regard to claim 5, Di Giulio et al. disclose at least one of the field device comprising a sensor 22 (see figure 1).

In regard to claims 6, 10, Di Giulio et al. disclose wherein the bus is a multidrop bus (see col. 7, lines 61-65).

In regard to claim 14, Di Giulio et al. disclose the second function module executing the program for process control (see col. 31, line 42 through col. 32, line 12).

In regard to claims 22, 28, Di Giulio et al. disclose the function module control (i.e. interface logic) (see col. 32, lines 14-56).

In regard to claim 33, Di Giulio et al. disclose the second function module controlling the third function module (see col. 31, line 42 through col. 32, line 12).

In regard to claim 34, Di Giulio et al. disclose the second control device 510 controlling further modules 220 (see figure 6).

Allowable Subject Matter

5. Claims 12-13, 15, 17-18, 20, 23-24, 26, 29-30, 35, are allowable over the prior of records.

The reason for allowance of claims, 12-13, 15, 17-18, 20, 23-24, 26, 29-30, 35, can be found in previous Office Action.

Response to Amendment

6. Applicant's amendment and arguments, see pages 3-22, filed on October 23, 2006, with respect to the rejections of claims 2-3, 5-7, 9-11, 14, 16, 21-22, 27-28, 33-34 under 35USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Prager et al.

Conclusion

7. Claims 2-11, 14, 16, 19, 21-22, 25, 27-28, 31-34, 36-42 are rejected. Claims 12-13, 15, 17-18, 20, 23-24, 26, 29-30, 35 are objected.
8. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

Sexton (US No. 5,056,001) discloses a method for configuring an I/O module coupled to a programmable logic controller.

Damiano et al. (US No. 5,493,194) disclose a control signal and power bus connector arrangement for a multi-axis motor control.

Johansson (US No. 5,455,991) discloses a communication protocol for use in transferring data over a serial bus.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

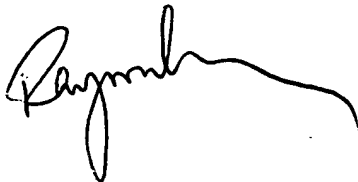
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571) 272-3632 or via e-mail addressed to mark.rinehart@uspto.gov. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.



Raymond Phan
December 22, 2006